Upon entry of this amendment which amends claims 1, 2, 3, 4, 8, 10, 11, 12, 15, 16, 17 and 22 and cancels claims 18-21, claims 1-17 and 22 remain pending. Claims 1-14, 16, 17 and 22 are rejected under 35 U.S.C. § 102 as being anticipated by Shaw et al. (U.S. Patent No. 5,706,290) (hereinafter "Shaw"); and claim 15 is rejected under 35 U.S.C. § 103 as being unpatentable over Shaw. Applicants respectfully request reconsideration of the claims in view of the above amendments and the comments below.

Rejections under 35 U.S.C. § 102

Claims 1-14, 16, 17 and 22 are rejected under 35 U.S.C. § 102 as being anticipated by Shaw.

With regard to claim 1, the Examiner asserted that Shaw discloses a computer conferencing system that anticipates the present claimed invention. Applicants respectfully disagree with the Examiner's conclusion. First, the Examiner's characterization of the Shaw invention as a computer conferencing system is inaccurate. The Shaw invention discloses an apparatus which allows various multimedia devices utilizing different coding formats to communicate with each other; in essence, it is a "translator" and nothing more. While the Shaw disclosure mentions a "conference control" feature, this feature when interpreted in the context of the specification can only reasonably mean controlling the priority of access to the controller apparatus.

Furthermore, Shaw discloses only an apparatus which is capable of "continuously monitor[ing] the processor and network bandwidth availability". As the Examiner pointed out, the Shaw apparatus uses various network interface modes. However, all these interface modes only relate to network bandwidth. It is not disclosed anywhere in Shaw that such apparatus is also capable of monitoring the client's speeds and loads. The invention disclosed by the present application, on the other hand, clearly monitors the speeds and loads of a client to determine the update rate of the shared display. On this basis alone, Shaw does not anticipate the present claimed invention.

In addition, Shaw does not disclose an apparatus which is capable of transmitting output data to multiple clients at the same time. Claim 1 has been amended to

include this feature. Therefore, the Examiner's rejection with respect to claim 1 should be withdrawn.

With regard to claim 2, Applicants repeat their objection to the Examiner's characterization of the Shaw apparatus as "a conference system for transmitting multimedia information over computer networks". The arguments raised above in response to the rejection of claim 1 apply with equal force here. Claim 2 has also been amended. Therefore, the Examiner's rejection with respect to claim 2 should also be withdrawn.

With regard to claim 3, the Examiner summarily concluded that all the elements of claim 3 are anticipated by Shaw because "many video compression methods use lossy compression, which drop elements of data streams." A rejection under §102 must show that all the elements of a rejected claim are shown in one cited reference. A categorical rejection is not sufficient. Here, the Examiner merely relied on the general statement that lossy compression results in dropping of elements of data streams to reject claim 3. No attempt was made to identify all the elements recited in claim 3 which are allegedly shown by Shaw. Perhaps, that is because Shaw does not anticipate all the elements recited in claim 3.

For example, Shaw does not disclose that the dropping of certain elements of the data streams is dependent on the client load and speed. Claim 3 has been amended to clarify that the discarding of data stream elements is determined on an individual basis for each client depending on the network bandwidth and each client's load and speed. This feature is not anticipated by Shaw. In Shaw, the decision on which compession method should be used is made solely based on the type of multimedia device that is acting as the client and the network bandwidth, without regard to the load and speed at the client. Since Shaw does not show all the elements recited in claim 3, the Examiner's rejection should be withdrawn.

With regard to claim 4, Applicants similarly traverse the Examiner's rejection. First, while Shaw discloses the use of compressed and differenced data, the use of client computing load and speed in data type selection is not mentioned. As the Examiner pointed out, selecting between these two types of data is based on network conditions, i.e., the

bandwidth manager 1300 constantly monitors the network to detect abrupt network bandwidth changes caused by local line degradation or network traffic congestion and responds by adjusting the media combinations to accommodate the available bandwidth. There is no mention of any data type selection using client load and speed. Again, this by itself is sufficient to overcome the Examiner's rejection.

Second, with respect to dropping intermediate data updates, it is respectfully submitted that the Examiner misinterpreted the teachings of Shaw. Shaw does not teach dropping intermediate data updates at a network connection between the source node and the destination node or at the destination node. What Shaw does teach is the lowering of the bit rate by the host processor to accommodate and correct any line degradations. There is a significant distinction between what Shaw discloses and the present claimed invention. In Shaw, the data correction takes place inside the multimedia communication assembly 112; once the corrected data are sent outside of the multimedia communication assembly 112, no further adjustment can be made. The present claimed invention, on the other hand, operates in a different manner. After the data updates leave the source node, they can still be dropped at a network connection or at the destination node depending on the existing conditions. Therefore, Shaw also does not anticipate this particular feature of claim 4.

Furthermore, claim 4 has been amended to clarify that a destination node is capable of handling any one of the designated data types given the appropriate network connection speed and destination node computing speed and load. This is clearly different from Shaw. It is obvious from the Shaw disclosure that not every client device is capable of handling all the data formats generated by the multimedia communication assembly 112 even if given unlimited network bandwidth. This is due to the inherent operating constraints of each device. For example, a facsimile machine simply cannot handle moving video data. Therefore, in light of the foregoing, the Examiner should now withdraw the rejection of claim 4.

With regard to claim 17, claim 17 has now been amended. The arguments raised above in response to the rejections of claims 1 and 3 apply with equal force here. Therefore, the Examiner's rejection with respect to claim 17 should also be withdrawn.

The remaining rejected claims 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 16, 22 ultimately depend, directly or indirectly, from independent claim 4 and thus derive patentability therefrom. These claims, however, recite additional features that are not anticipated by Shaw.

For example, with regard to claim 7, contrary to the Examiner's assertion, the element disclosed therein is not anticipated by Shaw. In Shaw, as the Examiner pointed out, the multimedia communication assembly 112 "continuously adapt[s] to a variety of network and processor bandwidth changing situations, for example, noisy local line condition and network traffic congestion." This functionality is not the same as transforming the data stream so as to conform to the display requirements of a client. Display requirements generally are not related to or affected by any bandwidth conditions. Therefore, claim 7 is not anticipated by Shaw.

With regard to claim 8, claim 8 has now been amended. The arguments raised above in response to the rejection of claim 3 apply with equal force here. Therefore, the Examiner's rejection with respect to claim 8 should also be withdrawn.

With regard to claim 9, a rejection under §102 must show that all the elements of a rejected claim are shown in one cited reference. A categorical rejection is not sufficient. Here, the Examiner merely relied on the general statement that conferences have a presenter and may have a plurality of attendees. What the Examiner fails to identify are the specific corresponding elements allegedly disclosed by Shaw. While there is a cursory mention of a "conference control" feature, there is no disclosure or description in the specification relating to a presenter or attendees. Therefore, the requirements for a §102 rejection are not met and the rejection of claim 9 should be withdrawn.

With regard to claim 10, it has been amended to clarify the dropping of data from the data stream in the event that such data are not needed at the destination node due to the update speed and the current view space. The arguments raised above in response to the

rejection of claim 4 apply with equal force here. Therefore, the Examiner's rejection with respect to claim 4 should be withdrawn.

With regard to claim 11, it has been amended to clarify that the output data types and the input data types can be changed dynamically based on the constantly changing availability of the network bandwidth and other computing resources at the source node and the destination node. In Shaw, only the network bandwidth or network conditions are taken into account in determining which compression algorithm should be employed; the availability of other computing resources such as CPU speed, load, and display requirements are not considered. Similarly, the Examiner's rejection with respect to claim 11 should be withdrawn.

With regard to claim 12, it has been amended to clarify that the transcoding processes can be located on any one of the multiple nodes depending on the network connections and other computing resources available at the node. This feature is clearly not anticipated by Shaw. In Shaw, the translation of one form of media object to another is handled entirely within the multimedia communication assembly 112. There is no indication that the translation can be performed at either the source device or the destination device. Hence, the amended claim 12 should now be allowed.

With regard to claim 16, it has been amended to clarify that the number of frames can be determined dynamically based in part on the presenter client conditions. Shaw similarly does not disclose the use of the presenter client conditions to determine the number of frames on a dynamic basis. Therefore, claim 16 should also be allowed.

Rejections under 35 U.S.C. § 103

Claim 15 is rejected under 35 U.S.C. § 103 as being unpatentable over Shaw. Applicants respectfully traverse the Examiner's rejection. Claim 15 ultimately depend directly from independent claim 4 and thus derive patentability therefrom.

Claim 15, however, recites additional features that are patentable over Shaw. First, the Examiner rejected claim 15 in part due to its similarity to claim 11. As stated in

connection with claim 11 above, Shaw does not teach using other computing resources such as CPU speed, load, and display requirements to determine the appropriate compression algorithm. Hence, there is no suggestion that computing resources may be used in calculating the number of frames for the presenter client display.

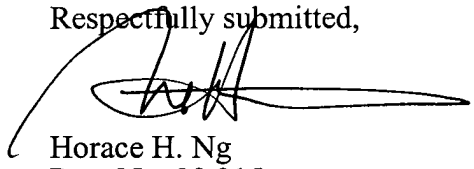
Furthermore, while Shaw discloses a method for calculating difference frames, it does not teach or suggest omitting unchanged frames. In fact, Shaw only teaches reducing the update rate when the network bandwidth is limited. There is no suggestion or showing that unchanged frames should be omitted in accordance with the presenter computation resources. Therefore, the Examiner's rejection should be withdrawn.

CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 415-576-0200.

Respectfully submitted,



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